DEPARTMENT OF VETERANS AFFAIRS
Veterans Health Administration
Washington DC 20420

IL 12-2005-003
In Reply Refer To: 122

October 25, 2005

OFFICE OF RESEARCH AND DEVELOPMENT INFORMATION LETTER

SOLICITATION OF APPLICATIONS FOR RESEARCH FOR ADVANCEMENTS IN TECHNOLOGY FOR THE TREATMENT OF OBESITY

NOTE: *This rescinds IL 12-2005-001, dated July 26, 2005, due to date change in subparagraph 14a.*

1. This Veterans Health Administration (VHA) Office of Research and Development (ORD) Information Letter announces the opportunity for investigators from Department of Veterans Affairs (VA) Medical Centers to submit proposals for funding of pilot and full merit-reviewed research grants focusing on the use of microtechnology, neural prostheses, robotics and other novel forms of rehabilitative engineering for the treatment of obesity, and its associated co-morbidities in special populations and healthy individuals.

2. An important goal of the Chronic Medical Disease portfolio of the Rehabilitation Research and Development Service (RR&D) is to identify, develop and supplement effective treatments in the fight against obesity in persons with disabilities. VA RR&D seeks, not only to expand the number of strategies used to prevent and treat obesity, but also to investigate novel approaches and strategies that promote superior health outcomes, compliance, cost-effectiveness, and address the special needs of the disabled community as well as healthy veterans. Research that incorporates nano-, micro-, macro, robotic, and/or advanced neural technology is desirable and encouraged.

3. Research that focuses on the special needs of obese persons due to chronic pain, peripheral neuropathy, dual sensory loss, severe burn injury, spinal cord injury, traumatic brain injury, stroke, multiple sclerosis, amyotrophic lateral sclerosis, Parkinson's disease, aging, and/or limb loss (in the context of a robotic engineering paradigm) represents high priority areas. In brief, this initiative will support hypothesis-driven proposals that are designed to not only enhance our knowledge of the successful treatment and/or prevention of obesity and its associated co-morbidities, but also to delineate the potential impact of neural and other platform technologies (e.g. BION™, robotics, Functional Electrical Stimulation (FES), Body Weight-Supported Treadmill Training (BWTT), etc.) on obesity prevention and treatment. Research that seeks to provide cutting-edge, translatable biomedical and rehabilitation engineering solutions to the treatment of obesity for veterans with disabilities is cogent.

4. VA RR&D realizes that obesity is a complex disease process that may require large sample populations, diligent, long-term research and care management in order to demonstrate a

significant effect and thus foster health improvement. Given the multiplicity of genetic, psychological, behavioral, and environmental factors that interplay in the etiology and pathophysiology of obesity and subsequent co-morbidities, the primary goals of enlisting conventional and innovative rehabilitation engineering techniques are to reduce obesity and to improve the psychological, social, and physical well being of obese veterans and/or those at-risk-for developing obesity.

5. VA RR&D solicits proposals that:

a. Define and characterize the impact of disability on obesity, the associated co-morbidities, and overall quality of life.

b. Develop novel approaches to prevent and/or treat obesity in those with chronic disability and otherwise healthy populations.

c. Ameliorate the effects of obesity and its co-occurring conditions via novel rehabilitation engineering technologies such as: FES, BWTT, Virtual Reality (VR) and others.

d. Develop novel obesity treatment programs that promote patient compliance and successful life-strategies.

NOTE: *Novel thinking and incorporation of technologies previously not used for the treatment of obesity is considered necessary to create a much-needed paradigm shift in the treatment of obesity and its associated co-morbidities.*

6. This Request for Applications (RFA) solicits studies from all academic disciplines. Investigators such as physical and occupational therapists, engineers, physiatrists, endocrinologists, internists, orthopedic surgeons, psychiatrists, psychologists, neurologists, basic scientists, and those who challenge existing paradigms by incorporating innovative rehabilitation engineering technologies for obesity research in special populations are encouraged to apply. Examples of obesity-related research topics include, but are not limited to:

a. Cardiovascular fitness,

b. Carbohydrate and lipid metabolism,

c. Body composition,

d. Energy expenditure,

e. Peripheral circulation,

f. Spasticity,

g. Motor and sensory recovery,

h. Ambulation, and

i. Molecular mechanisms.

7. Due to the nature of this solicitation, Center-to-Center collaborations are encouraged.

8. Research proposals will be reviewed for scientific merit, relevance to the veteran population, capability of applicant to meet intended outcome of proposed research program, and potential contribution of proposed research to the field of rehabilitation and ultimately, quality of life to veterans. Criteria for review and evaluation are:

a. Relevance to veteran population,

b. Relevance of stated hypothesis to the mission of RR&D,

c. Relationship of stated hypothesis to proposed research activities and/or methodologies,

d. Potential of proposed research plan to produce new and beneficial information with the expectation for therapeutic intervention and exponential increase in research findings,

e. Incorporation of expertise required to carry out all facets of the proposed research plan,

f. Contribution to overall VA RR&D portfolio,

g. Statistical power and significance,

h. Adequacy of VA facilities and equipment,

i. Ability of budget to cover all reasonable costs related to the proposal, and

j. Appropriateness and detail of subcontract (if required).

13. **Funding**. Pilot projects submitted in response to this solicitation may not exceed 2 years in duration or $200,000 in total cost. Full-merit review proposals may not exceed 3 years in duration or $750,000 in total cost.

NOTE: *Funding of proposals is contingent upon the availability of funds.*

14. Important Due Dates:

a. Letters of Intent:	November 9, 2005
b. Proposals due at RR&D Service:	December 15, 2005
c. Review:	February, 2006
d. Project funding date:	June, 2006

15. See Attachment A for requirements.

16. Applications and instructions for the RR&D standard review process are available on the RR&D website at http://www.vard.org. Direct questions about scientific and/or research issues to:

Denise Burton, Ph.D.
Portfolio Manger, Chronic Medical Diseases
Rehabilitation Research and Development Service 122P
Department of Veterans Affairs
810 Vermont Avenue, NW
Washington DC 20005

E-mail: denise.burton@va.gov
Phone: 202-254-0268
Fax: 202-254-0473

Joel Kupersmith, MD
Chief Research and Development Officer

Attachment

DISTRIBUTION: CO: E-mailed 10/25/2005
FLD: VISN, MA, DO, OC, OCRO, and 200 – E-mailed 10/25/2005

ATTACHMENT A

REQUIREMENTS

1. Proposals must incorporate proven techniques for adequate analysis and dissemination of results in leading peer-reviewed journals. Therefore proposals are required to include:

a. Use of adequate subject pools,

b. Incorporation of rigorous statistical analyses, and

c. Clearly defined outcomes.

2. Although preliminary data in support of the studies is not required, a demonstration of previous research, sound rationale, and appropriate expertise is expected.

3. All applicants (i.e., the Principal Investigator (PI) and any Co-PIs) for Department of Veterans Affairs (VA) research funds must hold at least a 5/8th salaried VA appointment before a research project can be funded.

4. All applicants must submit a Letter of Intent (LOI) by October 15, 2005. LOIs must be directed through the Associate Chief of Staff (ACOS) for Research and Development (R&D) and include:

a. Names of key investigators (PI, Co-PI, Co-Investigators),

b. Brief background,

c. Clearly stated hypothesis,

d. Outline of methods,

e. Estimated budget, and

f. Appropriate references.

5. This Request for Proposals will use Program Funding (822). The applicant must be solely responsible for planning, directing, and executing the proposed project. The applicant may request up to $250,000 in costs per year for 3 years for full merit proposals and up to $100,000 in costs per year for 2-year pilot projects.